

REPORT NO. 500-TRC-14-001 – TRC20110367
NHTSA C20131001 – 2013 Oreion Motors Sand Reeper 4x4

FMVSS 500
LOW SPEED VEHICLES
2013 Sand Reeper 4x4 LSV
NHTSA C20131001
Re-test of Remedied Vehicle

TRANSPORTATION RESEARCH CENTER INC.
East Liberty, Ohio 43319



AUGUST 2014

FINAL REPORT

Prepared Under Contract No. DTNH22-11-D-00247

PREPARED FOR:

U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Enforcement
Office of Vehicle Safety Compliance
1200 New Jersey Avenue S.E.
West Building 4th Floor
OVSC (NVS-221)
Washington, D.C. 20590

Prepared for the Department of Transportation, National Highway Traffic Safety Administration, under Contract No. DTNH22-11-D-00247.

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Prepared By


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Approved By


John Phillips

Date:

Report Accepted By:


Contract Technical Manager
Office of Vehicle Safety Compliance

Date

9/4/14

TECHNICAL REPORT STANDARD TITLE PAGE

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		6. Performing Organization Code TRC 20110367/5003	
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15. Supplementary Notes			
16. Abstract Compliance tests were conducted on the subject 2013 Oreion Motors Sand Reeper 4x4 LSV in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-500-02 for the determination of FMVSS 500 compliance. Vehicle was previously tested to FMVSS 500 and did not comply. This was a re-test of the remedied vehicle. Test failures identified were as follows: None			
17. Key Words Compliance Testing Safety Engineering FMVSS 500		18. Distribution Statement Copies of this report are available from: NHTSA Technical Reference Division NPO-411 1200 New Jersey Avenue Washington, D.C. 20590 Email: tis@nhtsa.dot.gov Fax No.: (202) 493-2833	
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1.0 **PURPOSE OF COMPLIANCE TEST**

Tests were conducted on a 2013 Oreion Motors Sand Reeper 4x4, manufactured by Oreion Motors LLC., to determine compliance with FMVSS 500 "Low Speed Vehicles." This vehicle was previously tested July 2013 and several non-compliances were noted:

FMVSS 500

- Top speed exceeded 40 kph
- Red reflectors on the sides at the rearmost point were not present
- Seat belts not labeled per FMVSS 209

This test was to verify that the remedied vehicle complied with FMVSS 500.

All tests were conducted in accordance with the U.S. DOT, NHTSA Laboratory Procedure TP-500-02 and/or the corresponding Transportation Research Center Inc. (TRC Inc.) test procedure, which was submitted to NHTSA for their approval. The test procedure was clearly described in the submitted document and has not been repeated in this report.

TRC Inc. personnel using the following TRC facilities conducted all tests:

Skid Pad
Speed Test

Average PFC during the test period was 0.94 (Skid Pad) utilizing the ASTM E1337 w/E1136 tire method.

2.0 FMVSS 500 – LSV INFORMATION AND TEST DATA SUMMARY

TEST LAB: TRC Inc. CONTRACT No.: DTNH22-11-D-00247
 TEST START DATE: 8/19/14 TEST END DATE: 8/21/14
 TEST START ODO.: 138.9 km. TEST END ODO.: 158.5 km.
 VEHICLE MAKE/MODEL/YEAR: 2013 Oreion Motors Sand Reeper 4x4
 PROPULSION TYPE: Gasoline engine SEATING CAPACITY: 2
 GVWR: 925 kg GAWR FRONT: 463 kg GAWR REAR: 499 kg
 DEALER INSTALLED ACCESSORIES: Soft Top was in passenger compartment
 TIRE MAKE/MODEL/TYPE & SIZE: Wanda, AT27x9.00-14 (front), AT27x11.00-14 (rear)

Safety Equipment	Pass	Fail
Headlamps (S5(b)(1))	X	
Turn signal lamps, front and rear (S5(b)(2))	X	
Tail lamps (S5(b)(3))	X	
Stop lamps (S5(b)(4))	X	
Reflex reflectors, one red on each side, one on rear (S5(b)(5))	X	
Driver's side exterior mirror or interior mirror (S5(b)(6))	X	
Passenger's side exterior mirror or interior mirror(S5(b)(6))	X	
Parking brake (S5(b)(7))	X	
Windshield, AS-1 or AS-4 composition (S5(b)(8))	X	
Vehicle Identification Number [VIN] (S5(b)(9))	X	
Seat belt assemblies – Type 1 or 2 (S5(b)(10))	X	
Certification label (Part 567)	X	
Vehicle Loading	Pass	Fail
Certification Label GVWR < 1,361 kg.	X	
With Occupant Weight Added to UVW: GVWR ≥ total measured vehicle weight. GVWR ≥ measured axle weights.	X	
With Occupant, Cargo &Luggage Weight Added to UVW: GVWR ≥ total measured vehicle weight. GVWR ≥ measured axle weights.	X	
Maximum Speed Test	Pass	Fail
Maximum Speed (S5(a)): <u>37.8</u> km/hr (more than 32 km/hr and not more than 40 km/hr)	X	

3.0 FMVSS 500 – DATA SHEET 1 (Sheet 1 of 3)

VISUAL INSPECTION

VEHICLE MAKE/MODEL/YEAR: 2013 Oreion Motors Sand Reeper 4x4

TEST/INSPECTION DATE: 08/19/14 VEHICLE ODO: 158.5 km.

NHTSA No.: C20131001

Headlamps: [Requirement: Must be present.]

Method of Activation: Toggle style switch is located on dash below audio control, up for on, down for off). Hi-Low beam is actuated by the stalk located on the left side of the steering column.

Function (Yes/No): Yes.

Turn Signals: [Requirement: Front and Rear must be present.]

Description (color and location): Front: Amber lens, located on the front of the vehicle, below the headlamp. Rear: Amber lens, located on the rear bumper, immediately below the taillamps.

Method of Activation: Push up for right and pull down for left - stalk on left side of steering wheel.

Function (Yes/No): Yes. Self-cancelling feature (Yes/No): No

Tail Lamps: [Requirement: Must be present.]

Description (Lens color): Red lens

Method of Activation: Activation occurs when the headlamps are on.

Function (Yes/No): Yes.

Stop Lamps: [Requirement: Must be present.]

Description (Lens color): Red lens

Method of Activation: With the key on, apply the service brake.

Function (Yes/No): Yes.

Reflex Reflectors: [Requirement: One red on each side as far to the rear as practicable, and one red on the rear.]

Description (Color, material, shape): Sides Reflectors: Front – Amber reflective lens, 50 mm dia. Rear – Red reflective tape, 25.3 mm x 77.4 mm. Rear: Red reflective lens, 30 mm x 85 mm.

Location: Sides: Front - Located on front fender directly in front of the door. Rear – at rearmost point on edge of fender above rear tire. Rear: Located on immediate rear facing edge of the rear fender.

Mirrors: [Requirement: Exterior driver's side mirror and either an exterior passenger side mirror or an interior mirror.]

Description (Flat or convex): Driver's side: Flat, Passenger's side: Flat, Interior: Flat.

Location: Driver's side: Mounted to the windshield pillar. Passenger side: Mounted to the windshield pillar. Interior: Very small mirror mounted to windshield with a suction cup.

Method for Adjustment: All mirrors are adjusted by hand.

FMVSS 500 – DATA SHEET 1 (Sheet 2 of 3)

VISUAL INSPECTION

Parking Brake: [Requirement: Must be present.]

Description (Type): Spring loaded lever acting on the rear service brake pads.

Location: To the immediate right of the driver's seat.

Method of Activation and Release: Pull up/back on handle to apply. Push button in end to release.

Function (Yes/No): Yes.

Windshield: [Requirement: Must meet the ANSI/SAE Z26.1 – 1996 specifications for AS-1 or AS-4 glazing and be marked with "DOT," Manufacturer, and "AS-1" or "AS-4". Conformance to FMVSS 205.]

Labeling: ccc, E4, E000159, Laminated, 43R-000131, DOT-826, M650, AS1

Vehicle Identification Number (VIN): [Requirement: A VIN that conforms to the requirements of Part 565 – Vehicle Identification Number including 17 digit alpha- numeric number.]

VIN Z9AA23L4DA404417

Seatbelt: [Requirement; Type 1 or Type 2 belts conforming to FMVSS 209.]*See note below.

Type: Front: Type 2, (lap belt and shoulder)

Labeling: All Belts: Ar4m, E4,04 36275, DC-3000, Made in China

Model#-DC3000, Manufacturer: Changzhou, DOT, This seat belt assembly is for use only in auto seats. Date of manufacture 2013 has been stamped on label (see photo). S5(b)(10) and FMVSS209 S4.1(J).

Location: Tag sewn onto the belt near anchor bolt.

Certification Label: [Requirement: Complies with Part 567 Certification.]

Vehicle Type Identified on Label: LSV

Location: On driver's door jamb.

Certification Statement (Yes/No): Yes.

Comments:

DATA INDICATES COMPLIANCE: YES: X No:

RECORDED BY: D. Bevis
APPROVED BY: M. Bilbee

DATE: 8/21/14
DATE: 9/3/14

FMVSS 500 – DATA SHEET 2 (Sheet 1 of 1)

VEHICLE LOADING

VEHICLE MAKE/MODEL/YEAR: 2013 Oreion Motors Sand Reeper 4x4

TEST/INSPECTION DATE: 8/20/14 VEHICLE ODO: 157 km

NHTSA No.: C20131001

Information from vehicle certification label

GVWR: 925 kg; 2040 lbs.; GAWR F: 463 kg; 1020 lbs.; GAWR R: 499 kg; 1100 lbs.

Number of seat belt assemblies = designated seating capacity (DSC): 2

Vehicle weight measurements:

Unloaded Vehicle Weight: Vehicle 737.0 kg or sum (front + rear) NA kg

Front 334.8 kg, Rear 402.2 kg

Includes maximum capacity of fluids necessary for operation of the vehicle; state fluids and amounts added, if any: NA

Vehicle plus occupants weight = DSC 2 x 68 kg = 136 kg

Vehicle 873.2 kg or sum (front + rear) NA kg, Front 399.4 kg, Rear 473.8 kg

Cargo and Luggage Weight (if specified) = 50 kg or calculated below:

Vehicle Capacity Weight NA kg – occupant weight NA kg = NA kg.

Source: () label on vehicle, (X) owner's manual, () other: _____

Recommended location (if specified): On cargo rack

Source: () label on vehicle, (X) owner's manual, () other: _____

Vehicle plus occupants, cargo and luggage weight = Vehicle 923.2 kg or sum (front + rear) NA kg, Front 404.6 kg, Rear 518.6 kg

If no cargo and luggage weight or vehicle capacity weight is specified, then calculate the following:

Cargo and luggage weight = GVWR NA kg – vehicle plus occupants weight NA kg (from above) = NA kg

Comments: Weights were taken without optional soft top.

DATA INDICATES COMPLIANCE: YES: X No: _____

RECORDED BY: D. Bevis

DATE: 8/20/14

APPROVED BY: M. Bilbee

DATE: 9/3/14

FMVSS 500 – DATA SHEET 3 (Sheet 1 of 1)

SPEED TEST – PRETEST

VEHICLE MAKE/MODEL/YEAR: 2013 Oreion Motors Sand Reeper 4x4

TEST/INSPECTION DATE: 8/19/14 VEHICLE ODO: 141 km.

NHTSA No.: C20131001

Unloaded Vehicle Weight (UVW):

LF Wheel <u>165.4</u> kg	RF Wheel <u>169.4</u> kg	Front Axle <u>334.8</u> kg
LR Wheel <u>203.4</u> kg	RR Wheel <u>198.8</u> kg	Rear Axle <u>402.2</u> kg

Weight of Driver, Instrumentation and Required Ballast: 78 kg (78 kg required)

Vehicle Test Weight (UVW = weight of driver instrumentation and required ballast):

LF Wheel <u>190.2</u> kg	RF Wheel <u>177.8</u> kg	Front Axle <u>368.0</u> kg
LR Wheel <u>235.4</u> kg	RR Wheel <u>211.6</u> kg	Rear Axle <u>447.0</u> kg
		Total Vehicle <u>815.0</u> kg

Actual Tire Inflation Pressure: LF 48 kPa, RF 48 kPa, LR 48 kPa, RR 48 kPa

Maximum Tire Inflation Pressure from Tire Sidewall: Front 48 kPa, Rear 48 kPa

Vehicle Break-in Agenda Specified by Vehicle Manufacturer: (X) Yes, () No.

If Yes, Describe: 10 hours before WOT; however, throttle limiter prevents WOT

Data Acquisition System, Field Calibration “Distance” – Pre Test

	Check No. 1 (meters)	Check No. 2 (meters)
Known Distance:	1000	1000
Measure Distance” [Allowed Tolerance ± 2 meters]	999.5 meters	1000.1 meters

Vehicle Conditioning: Start Time NA End Time NA Duration NA (3 hr. min.)

Start Temp NA End Temp NA

Vehicle conditioned within 5°C of ambient: () Yes, () No

Propulsion Batteries Fully Charged: () Yes, () No NA

Comments: Vehicle was stored and instrumented in the test facility garage which at approximately 24° C was within 5 C degrees of measured ambient of 29° C. The speed test was conducted immediately after the pre-test calibration.

DATA INDICATES COMPLIANCE: YES: X No:

RECORDED BY: M. Bilbee

APPROVED BY: J. Phillips

DATE: 8/19/14

DATE: 9/3/14

FMVSS 500 – DATA SHEET 4 (Sheet 1 of 3)

SPEED TEST

VEHICLE MAKE/MODEL/YEAR: 2013 Oreion Motors Sand Reeper 4x4

TEST/INSPECTION DATE: 8/19/14 VEHICLE ODO: 144 km.

NHTSA No.: C20131001

Conditioning Temperature Range (see Data Sheet 3): NA to NA

Ambient Temperature: Pass 1 28.9°C, delta NA Pass 2 28.9°C, delta NA
(delta = Conditioning Temperature minus Ambient Temperature)

Maximum Wind Speed: Pass 1 5 m/s Pass 2 5 m/s

Description of Vehicle Openings: Optional Top not installed

Vehicle Odometer and/or Hour Meter reading: 144 km.

Start Time: Pass 1 3:04 pm. End Time: Pass 1 3:06 pm.
Pass 2 3:07 pm. Pass 2 3:10 pm.

*Vehicle Charge Level Meter, % (if applicable): Start: Pass 1 NA% End: Pass 1 NA%
Start: Pass 2 NA% End: Pass 2 NA%

Measured Battery Voltage, "V" (if applicable): Start: Pass 1 NA V End: Pass 1 NA V
(Test laboratory measured with voltmeter) Start: Pass 2 NA V End: Pass 2 NA V

Maximum Vehicle Speed Data

Pass	Maximum Speed Visual Data (km/hr)	Maximum Speed Recorded Data (km/hr)	Time Between Passes (minutes) (30 max.)
Pass #1 (1 st 1.6 km) (North)	35.8	35.9	1 min.
Pass #2 (2 nd 1.6 km) (South)	37.6	37.6	

NOTE: Vehicle speed and distances versus time data traces for each speed run are to be included in the final test report. See Appendix B.

Comments: A speed test verification was made that 4x4 mode was slower than 2x4 mode.

DATA INDICATES COMPLIANCE: YES: X No:

RECORDED BY: M. Bilbee
APPROVED BY: J. Phillips

DATE: 8/19/14
DATE: 9/3/14

FMVSS 500 – DATA SHEET 4 (Sheet 1 of 3)

SPEED TEST

VEHICLE MAKE/MODEL/YEAR: 2013 Oreion Motors Sand Reeper 4x4

TEST/INSPECTION DATE: 8/19/14 VEHICLE ODO: 147 km.

NHTSA No.: C20131001

Conditioning Temperature Range (see Data Sheet 3): NA to NA

Ambient Temperature: Pass 1 28.9°C, delta NA Pass 2 28.9°C, delta NA
(delta = Conditioning Temperature minus Ambient Temperature)

Maximum Wind Speed: Pass 1 5 m/s Pass 2 5 m/s

Description of Vehicle Openings: Optional Top installed (per S6.3.5)

Vehicle Odometer and/or Hour Meter reading: 147 km.

Start Time: Pass 1 3:20 pm. End Time: Pass 1 3:24 pm.
Pass 2 3:25 pm. Pass 2 3:28 pm.

*Vehicle Charge Level Meter, % (if applicable): Start: Pass 1 NA% End: Pass 1 NA%
Start: Pass 2 NA% End: Pass 2 NA%

Measured Battery Voltage, "V" (if applicable): Start: Pass 1 NA V End: Pass 1 NA V
(Test laboratory measured with voltmeter) Start: Pass 2 NA V End: Pass 2 NA V

Maximum Vehicle Speed Data

Pass	Maximum Speed Visual Data (km/hr)	Maximum Speed Recorded Data (km/hr)	Time Between Passes (minutes) (30 max.)
Pass #1 (1 st 1.6 km) (North)	36.7	36.8	1 min.
Pass #2 (2 nd 1.6 km) (South)	37.7	37.8	

NOTE: Vehicle speed and distances versus time data traces for each speed run are to be included in the final test report. See Appendix B.

Comments: Optional top installed and side windows closed.

DATA INDICATES COMPLIANCE: YES: X No:

RECORDED BY: M. Bilbee
APPROVED BY: J. Phillips

DATE: 8/19/14
DATE: 9/3/14

FMVSS 500 – DATA SHEET 4 (Sheet 3 of 3)

SPEED TEST – Post Test

VEHICLE MAKE/MODEL/YEAR: 2013 Oreion Motors Sand Reeper 4x4

TEST/INSPECTION DATE: 8/19/14 VEHICLE ODO: 152 km.

NHTSA No.: C20131001

Data Acquisition System, Field Calibration “Distance” – Post Test

	Check No. 1 (meters)	Check No. 2 (meters)
Known Distance:	1000	1000
Measure Distance” [Allowed Tolerance \pm 2 meters]	1000	999

Data Acquisition System, Field Calibration “Time” – Post Test

[Traverse Known 1000 meter Distance at Constant Speed of 32 km/h (20 mi/h) \pm 1.6 km/h (1 mi/h)]

	Check No. 1 (seconds)	Check No. 2 (seconds)
Known Time:	112	112
Measure Distance” [Allowed Tolerance \pm 1 seconds]	112.18	111.96

Comments: None.

DATA INDICATES COMPLIANCE: YES: X No:

RECORDED BY: M. Bilbee
APPROVED BY: J. Phillips

DATE: 8/19/14
DATE: 9/3/14

4.0 NOTICE OF NONCOMPLIANCE

This vehicle (C20131001) appears to meet the FMVSS 500 compliance standard.

5.0 PHOTOGRAPHS



Left Front $\frac{3}{4}$ View



Right Rear $\frac{3}{4}$ View

MFD BY: OREION MOTORS LLC

DATE OF MFG : 04/2013

GVWR: 925 KG(2040 LB)

	GAWR	WITH TIRES	RIMS AT	COLD
FRONT	463 KG(1020 LB)	AT 27X9X14	14" X 9"	48 KPA(7 PSI)
REAR	499 KG(1100 LB)	AT 27X11X14	14" X 11"	48 KPA(7 PSI)

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S.
FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN
EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

WARNING: ANY MODIFICATION TO THE VEHICLE RESTRAINT SYSTEMS,
SAFETY EQUIPMENT AND OR SPEED RATING WILL INVALIDATE THE LSV
CERTIFICATION PROVIDED FOR THIS VEHICLE BY OREION MOTORS LLC.

V.I.N.

1Z9AA23L4DA404417

TYPE: LOW SPEED VEHICLE

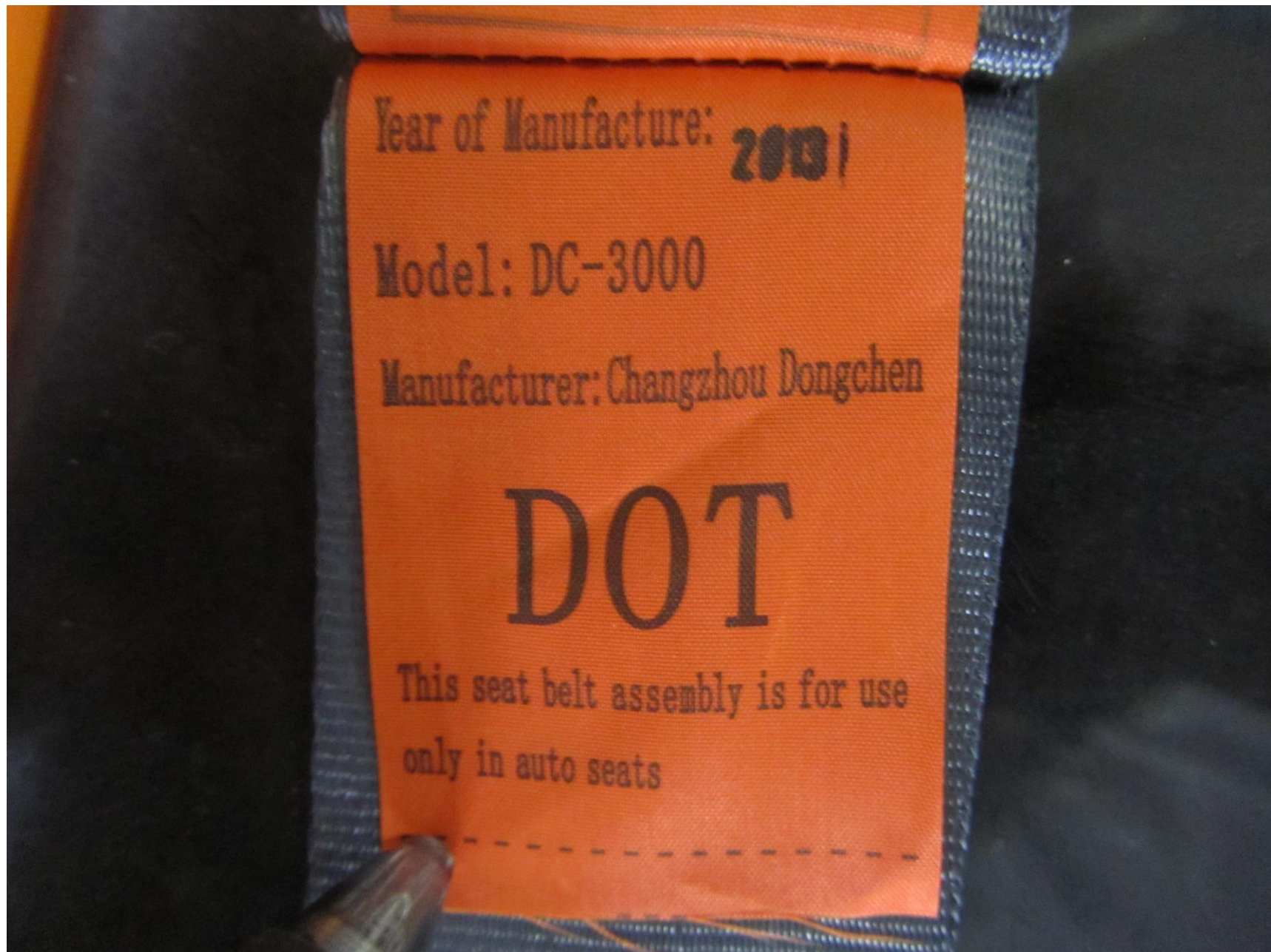
LS-MT



VIN as viewed through Windshield



Seat Belt Identification Label



Seat Belt Identification Label (front belt # 1)



E000159

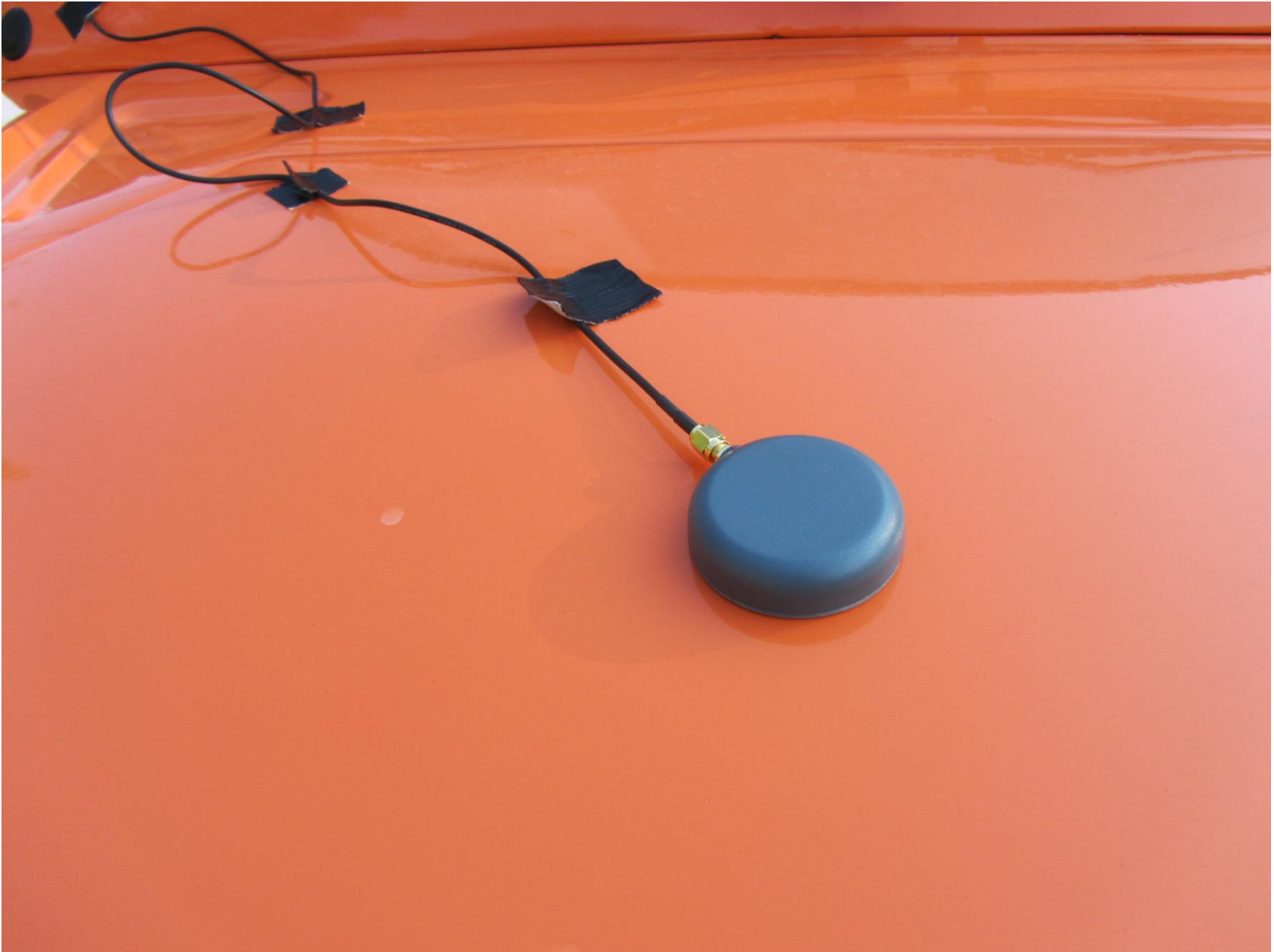
E₄ LAMINATED
43R-000131
DOT-826 M650-AS1



Speed Test Instrumentation w/Readout



Speed Test Instrumentation



Speed Test Instrumentation Sensor



Vehicle on Scales



Park Brake



Left Rear View Mirror



Interior Rear View Mirror



Right Rear View Mirror



Headlight and Marker Light/Directional Signal

OREION

Tail Light/Brake Light/Directional Signal/Rear Reflector



Left Side Rear Reflector



Left Side Front Reflector

- Set handbrake before leaving vehicle.

- Remove key when leaving vehicle unattended.

- Stop vehicle before reversing direction.

- Be aware of small children and objects behind you before reversing direction.

ALWAYS DRIVE SAFELY

FAILURE TO FOLLOW THESE WARNINGS COULD RESULT IN SERIOUS OR FATAL INJURY.

25 MPH VEHICLE

LOW SPEED VEHICLE DISCLOSURE

THIS VEHICLE IS CLASSIFIED AS A LOW SPEED VEHICLE

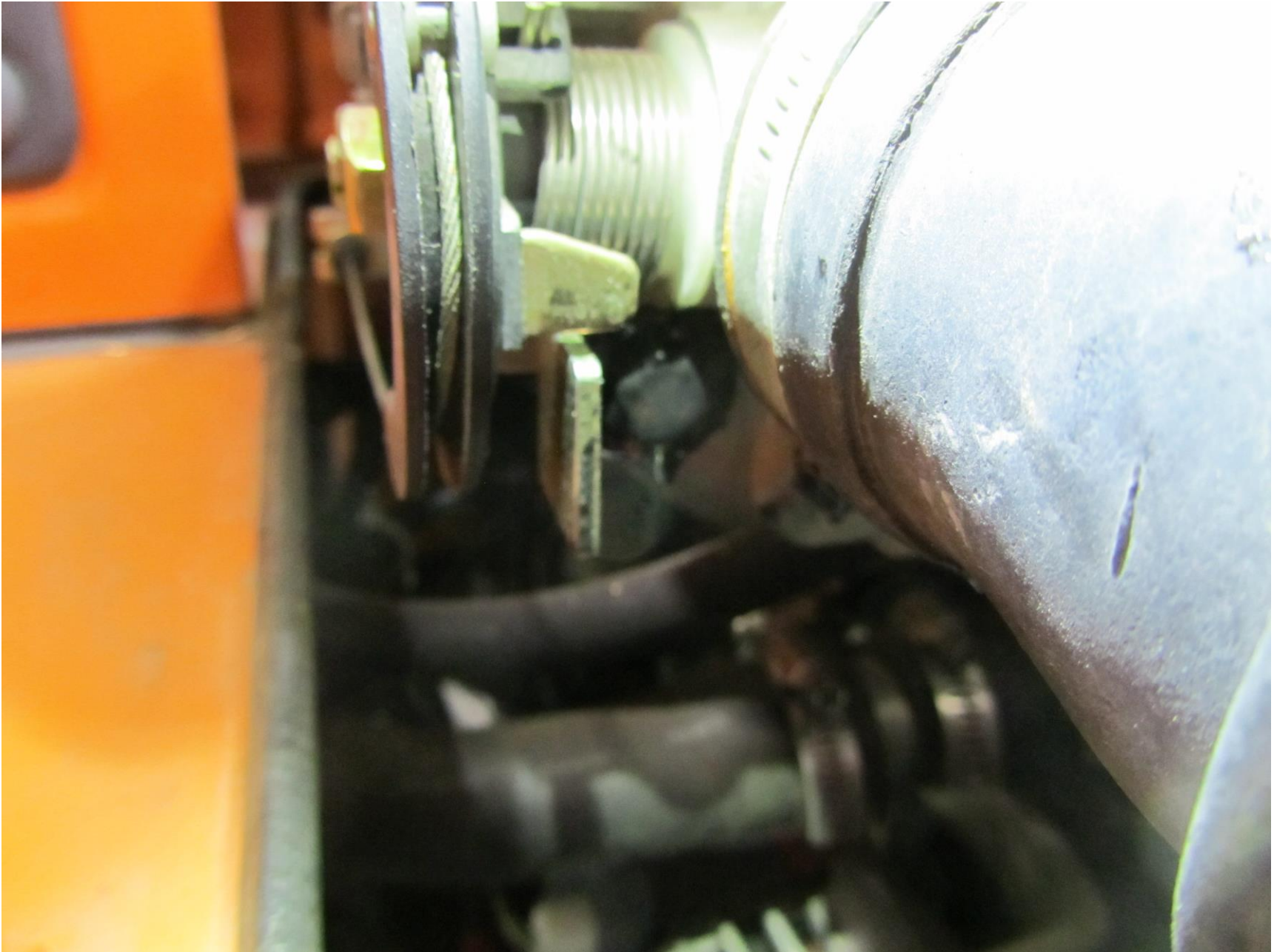
THIS VEHICLE

- has a maximum speed of greater than 20 miles per hour, but not greater than 25 miles per hour;
- shall not be operated on a public highway with a speed limit in excess of maximum specified by the state or local jurisdiction in which it is operated;
- may be a hazard on the roadways if it impedes traffic;
- may subject the driver to citations for impeding traffic;
- may not be equipped with such safety features as bumpers, a padded dashboard, visors and a tamper-resistant odometer; and
- may be subject to other restrictions specified by the state or local jurisdiction in which it is operated.

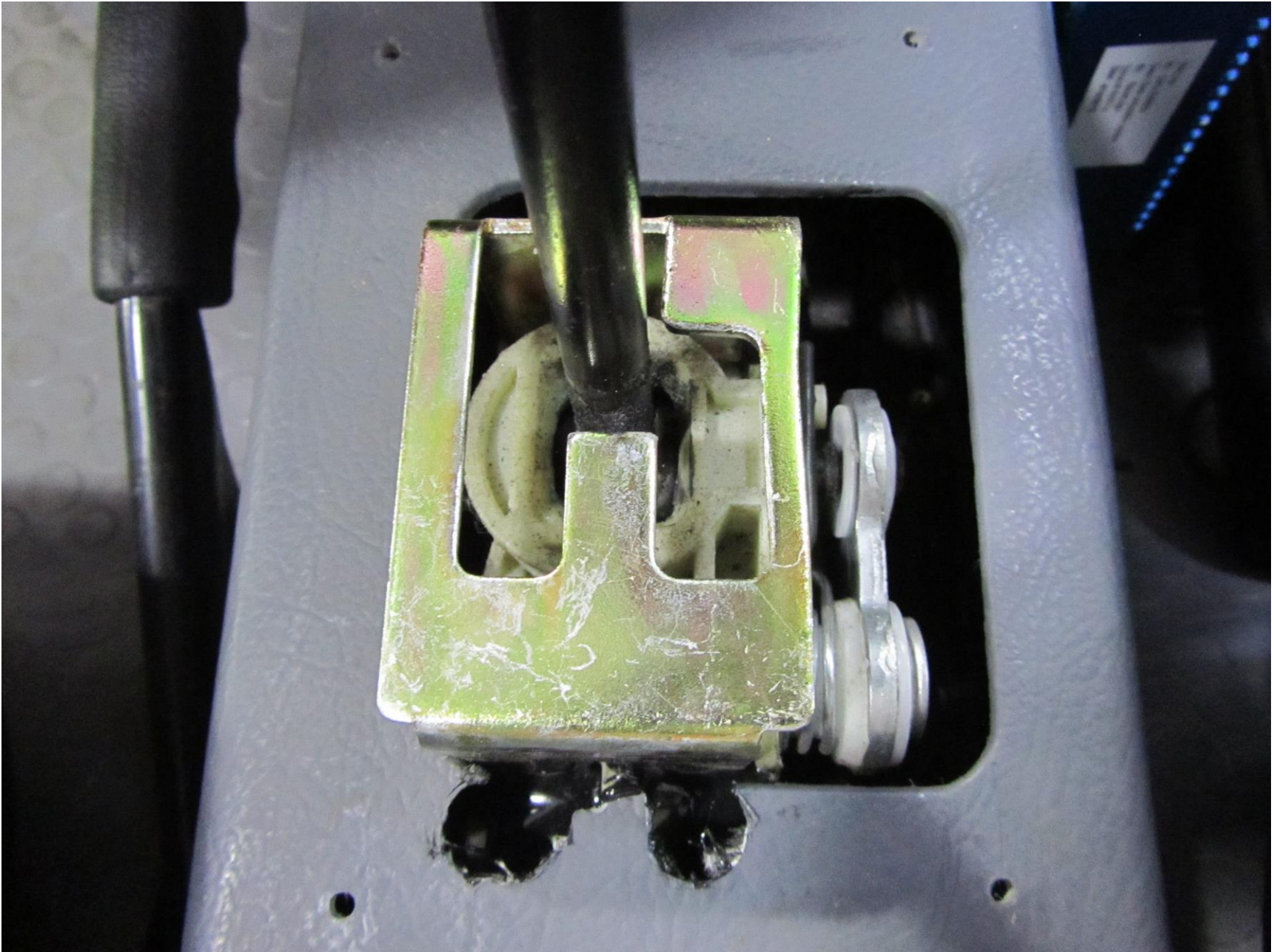
0350-02209



Vehicle Speedometer



Throttle Restricting Stop on Throttle Body



Shifter Block-out Plate Restricting 4th and 5th Gear



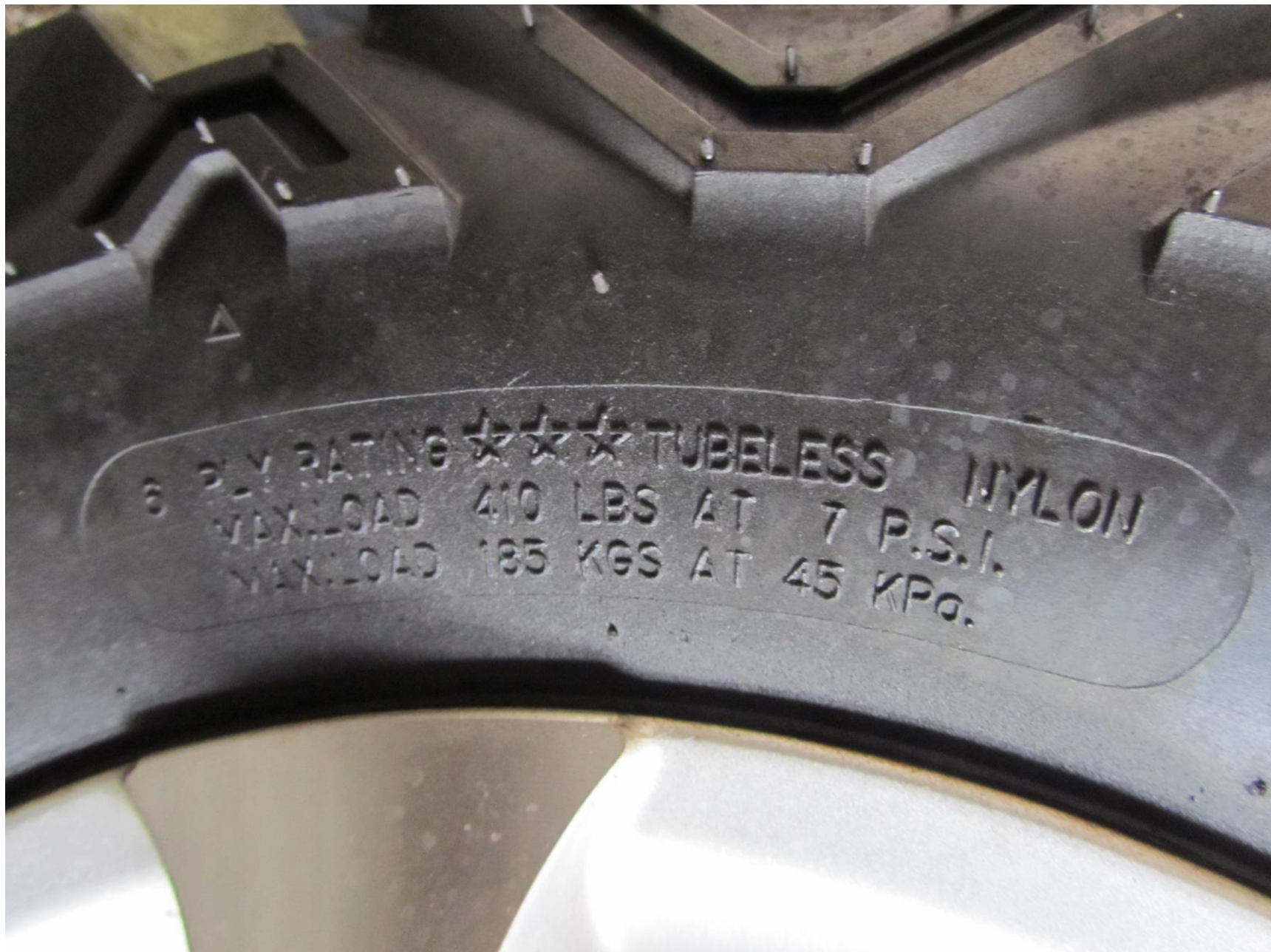
Warning Label



Warning Label



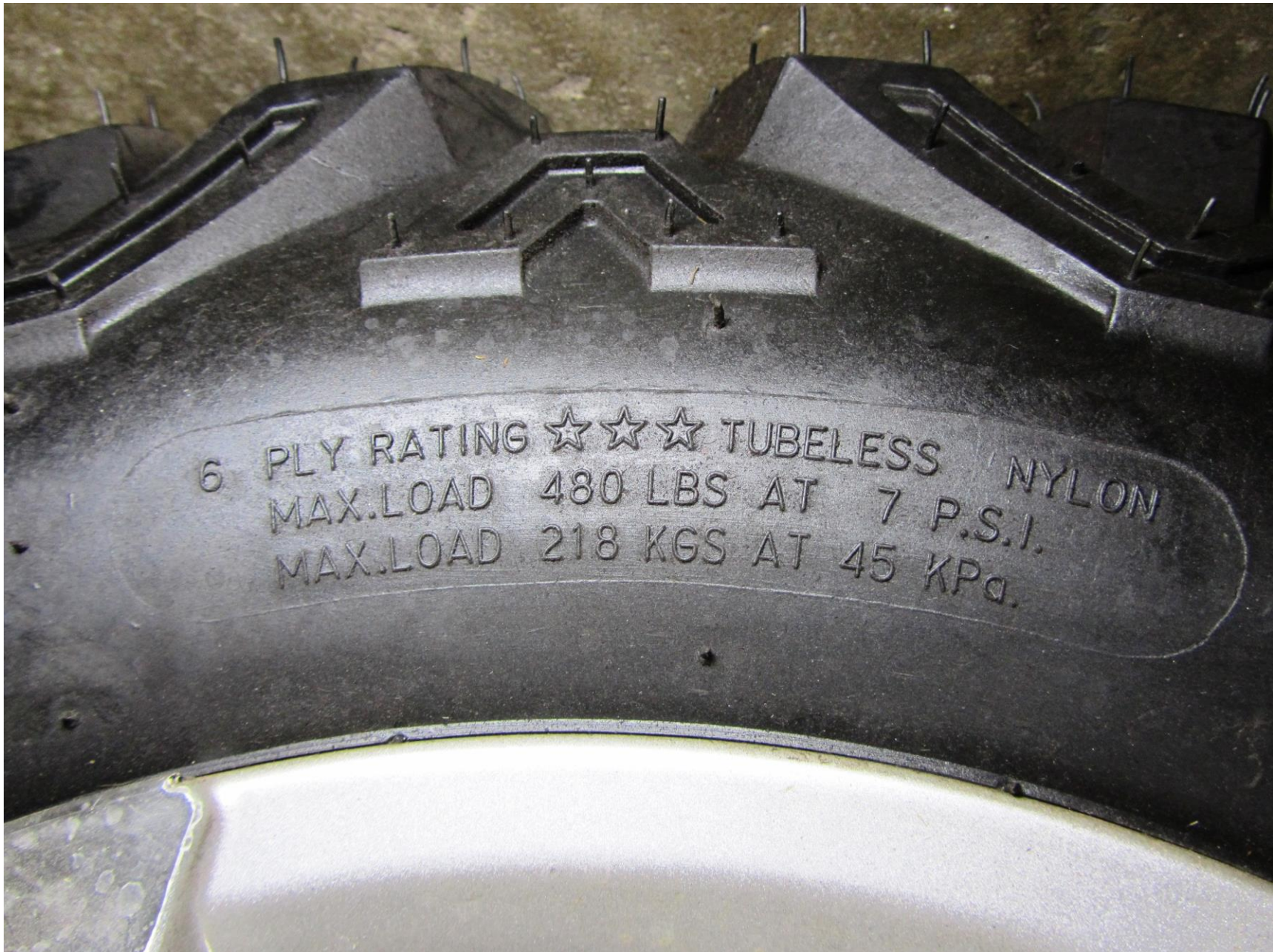
Front Tire Size



Front Tire Sidewall Pressure



Rear Tire Size



Rear Tire Sidewall Pressure

6.0 TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

INSTRUMENT CALIBRATION (12 MONTH MAXIMUM INTERVAL)

VEHICLE: 2013 Oreion Sand Reeper 4x4

NHTSA No.: C20131001

DATE: 7/24/13

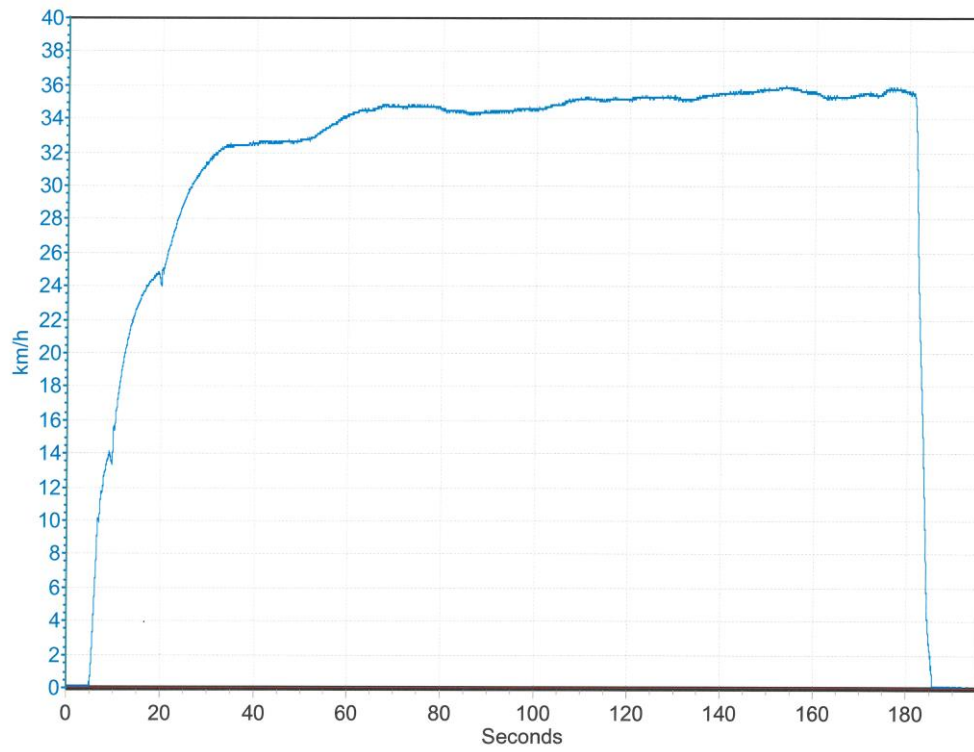
Instrument Use & Manufacturer	Model No.	Serial No.	Range & Resolution	Accuracy	Calibration Date	Next Calibration	Calibrations: Manufacturer, Internal or Contractor
Velocity - Racelogic, LTD	VBOX 3i 100 Hz	DAS-030904	0.1 - 1609 km/h 0.01 km/h	0.1 km/h full scale	4/16/14	4/16/15	Manufacturer
Distance - Racelogic, LTD	VBOX 3i 100 Hz	Das-030525	Range: NA 1 cm	0.05%	4/16/14	4/16/15	Manufacturer
Temperature – Davis Instruments	6152 Wireless Vantage Pro ISS	A50609A02	-40 °C to 60 °C, 1 °C	± 1 °C, between -40 °C – 43 °C	3/20/14	3/20/15	Manufacturer
Wind Speed – Davis Instruments	6410 Anemometer w/790L “Large Wind Cups	070817N03	3 to 241 km/h 1 km/h	3 km/h or 5% whichever greater	3/20/14	3/20/15	Manufacturer
Tire Pressure –.	Type 233.53 Fluid Filled, Bourdon Tube Pressure Gauge, Stainless S.	TRC SN: AG-139	0 – 689 kPa 3 kPa	1% of Span	7/15/14	10/15/14	Internal
Vehicle Mass – Mettler-Toledo	Four – #2158 Pads/Sensors One – JXGAA00000 Processor/Display	11079361JC 11079461JC 11079471JC 11079381JC 522588315J C	0 TO 1334 KG 0.2 KG	0.1% of Applied Load	5/27/14	8/27/15	Contractor

APPENDIX A
CONTRACTOR'S COMMENTS
PROCEDURE MODIFICATIONS
TEST FACILITY

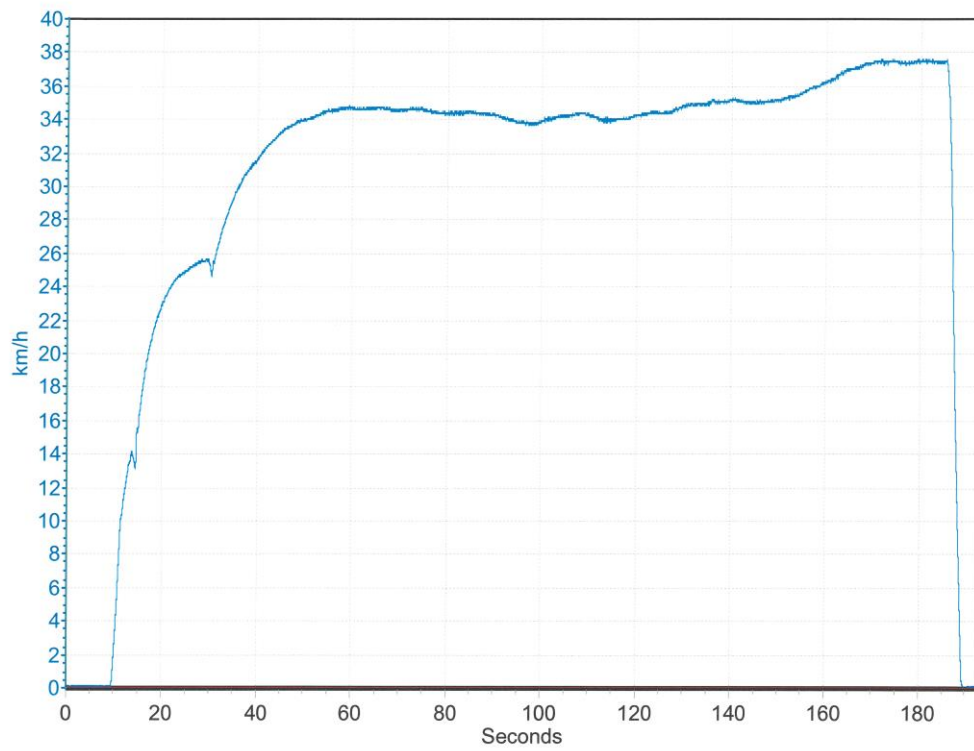
The speed is limited by two means on the vehicle (C20131001). The throttle is limited by a stop on the throttle body that restricts pedal travel, and a block out plate has been added to the shifter to eliminate the use of 4th and 5th gears.

APPENDIX B
TEST SPEED GRAPHS

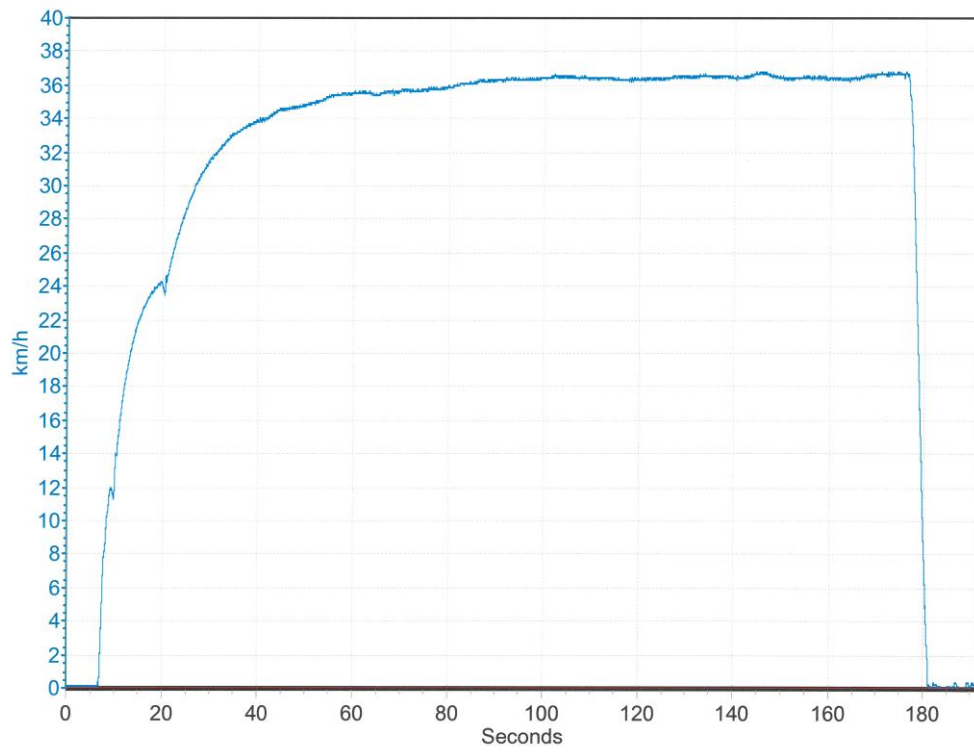
Without Top, South



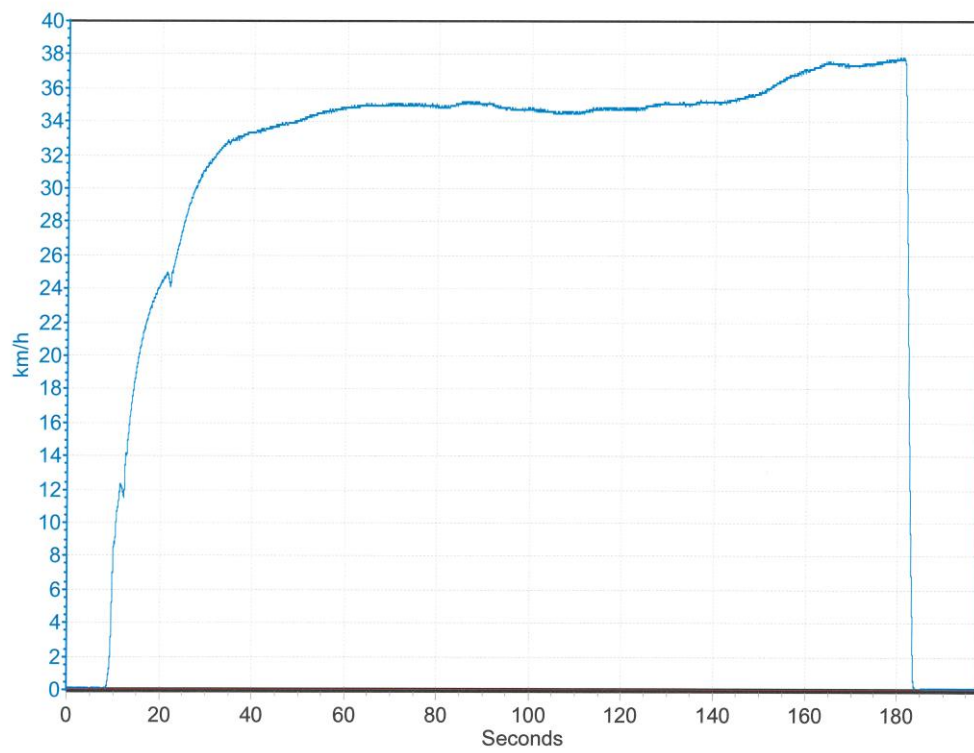
Without Top, North



With Top, South



With Top, North



APPENDIX C
COPY OF MANUFACTURER'S STICKER

SAND REEPER LSV



BY OREGON MOTORS



CHERY 12 VALVE 812 CC ENGINE
9.5:1 COMPRESSION RATIO
MULTI PORT FUEL INJECTION
LOCKING DIFFERENTIALS
PUSH BUTTON 4 WHEEL DRIVE
INDEPENDENT SUSPENSION
RACK & PINION STEERING
40+ MPG
FULL FRAME
FOLD AWAY SIDE MIRRORS
3000# FRONT WINCH
FRONT BUMPER
STAINLESS STEEL BRAKE LINES
SUPER WHITE BLUE LIGHTS
14" ALUMINUM WHEELS

STANDARD EQUIPMENT

2 STROKE
3 CYLINDER 58 HP
LIQUID COOLED
5 SPEED TRANSMISSION
TRUE 4 WHEEL DRIVE
27" DOT RADIAL ALL TERRIAN TIRES
DOT GLASS WINDSHIELD
LUGGAGE RACK
SOFT TOP W/ PLASTIC WINDOWS
LED TURN SIGNALS
TOOL KIT
HD FRONT END KNUCKLES
E-BRAKE
DRIVE TRAN AXLE
27" DOT RADIAL ALL TERRIAN TIRES

METAL BODY
METAL DOORS
LARGE PLASTIC FENDERS
POWER DISC BRAKES
HITCH & WIRING
HD REAR TOW HOOKS
WIPERS & WASHERS
STEEL CAGE
FULL GAUGE PACKAGE
TURN SIGNALS
6 GAL. FUEL CELL
STEREO W/MP3 HOOK-UP
BUCKET SEATS
DRY WEIGHT 1410 LBS.

Manufacturer Specifications & Standards are subject to change without notice or liability.

The Reeper is a newly designed Vehicle that is ready for restricted width off road trails and can go from 4 wheel drive to 2 wheel drive in an instant and then could be driven home.

OFFROAD, TOWABLE & STREET LEGAL AS AN LSV (LOW SPEED VEHICLE) IN MOST STATES

OREGON MOTORS & SUNCOAST TRAILER SALES INC IS NOT RESPONSIBLE FOR MODIFICATION THAT VIOLATES LOCAL LAWS.

2013 SAND REEPER ORANGE	VIN #	129AA2314DA404417
MSRP	\$	13,995.00
FREIGHT FROM NEW MEXICO TO INDIANA	\$	699.00
DEALER PREP & FINAL ADJUSTMENTS	\$	195.00
TOTAL RETAIL PRICE	\$	14,889.00

DEALER INSTALLED OPTIONS: NONE

Total Installed Options

\$ -

TOTAL PRICE WITH OPTIONS

\$ 14,889.00

APPENDIX D
PERTINENT OWNER'S MANUAL PAGES

lots conditions. Check protectors boots for cracks, tears, leaking as necessary.

to feel the play. See an if there is any play.



ti-seize lubricant on it when vehicle is used time, lubricate then

ressure may he tire. Always

conditions has changed. For your convenience, we suggest you to put a pressure gauge in tool box.

TIRE PRESSURE				
TYPE	STREET TIRE		OFF ROAD TIRE	
	FRONT	REAR	FRONT	REAR
RECOMMENDED	<u>200 kPa</u>	<u>225 kPa</u>	<u>45 kPa</u>	<u>50 kPa</u>
MINIMUM	180 kPa	200 kPa	40 kPa	45 kPa

Although the tires are specifically designed for off-road use, a flat may still occur. Therefore, it is recommended to carry a tire pump and a repair kit.

Tire/Wheel Condition

Check tire for damage and wear. Do not use tires that are worn, cracked, or have a flat. Tires are designed for off-road use and must be kept in a specific direction for proper operation.

When

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N.m.

200 kPa = 29 psi
225 = 32.6 psi

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